AMENDMENTS TO THE CLAIMS

1. **(Previously Presented)** A method of treating a microorganism infection in a patient which comprises administering to said patient an effective amount of a compound capable of inhibiting an enzyme that is important to energy storage or utilization in said microorganism.

Claims 2-17 **(Canceled)**

18. **(Currently Amended)** A method of identifying a compound capable of inhibiting the growth of pathogenic microorganisms which comprises identifying a compound that inhibits the conversion of α-glucose-1-phosphate + ATP into ADP-glucose + Ppi by binding to an enzyme involved in the conversion of α-glucose-1-phosphate + ATP into ADP-glucose + Ppi.

19. **(Previously Presented)** A method of identifying a compound capable of inhibiting the growth of pathogenic microorganisms which comprises identifying a compound that inhibits the chain elongation of ADP glucose.

20. **(Currently Amended)** A method of identifying a compound capable of inhibiting the growth of pathogenic microorganisms by interfering with energy storage or utilization in said microorganism which comprises identifying a compound that inhibits the activity of ADP glucose pyrophosphorylase (EC 2.7.7.27) by binding to said ADP glucose pyrophosphorylase.

21. **(Previously Presented)** A method of identifying a compound capable of inhibiting the growth of pathogenic microorganisms by interfering with energy storage or utilization in said

microorganism which comprises identifying a compound that inhibits the activity of glycogen synthase (EC 2.4.1.21).

22. **(Currently Amended)** A method of identifying a compound capable of inhibiting the growth of pathogenic microorganisms by interfering with the activity of ADP-glucose pyrophosphorylase (EC 2.7.7.27) by binding to said ADP glucose pyrophosphorylase which method comprises incubating a sample of bacteria in a media in the presence or absence of a test compound, and assessing the effect on conversion of α-glucose-1-phosphate, wherein a lower level of conversion of α-glucose-1-phosphate in the presence of said test compound, compared with the level of conversion of α-glucose-1-phosphate in the absence of said test compound, indicates that said test compound interferes with the activity of ADP glucose pyrophosphorylase (EC 2.7.7.27) by binding to said ADP glucose pyrophosphorylase.

23. **(Previously Presented)** A method of identifying a compound capable of inhibiting the growth of pathogenic microorganisms by interfering with the activity of glycogen synthase (EC 2.4.1.21) which method comprises incubating a sample of bacteria in a solution containing a known amount of ADP glucose in the presence or absence of a test compound, and assessing the effect on chain elongation of ADP glucose in the presence of said test compound, compared with the level of chain elongation in the absence of said test compound, indicates that said test compound interferes with the activity of glycogen synthase (EC 2.4.1.21).

24. **(Previously Presented)** A method of identifying a compound capable of inhibiting the growth of pathogenic microorganisms by interfering with the activity of ADP glucose pyrophosphorylase (EC 2.7.7.27) which method comprises exposing a substrate

comprising ADP glucose pyrophosphorylase (EC 2.7.7.27) to a plurality of test compounds and identifying a test compound which binds to said ADP glucose pyrophosphorylase (EC 2.7.7.27).

25. **(Previously Presented)** A method of identifying a compound capable of inhibiting the growth of pathogenic microorganisms by interfering with the activity of glycogen synthase (EC 2.4.1.21) which method comprises exposing a substrate comprising glycogen synthase (EC 2.4.1.21) to a plurality of test compounds and identifying a test compound which binds to said glycogen synthase (EC 2.4.1.21).

26. **(Previously Presented)** The method of claim 24, wherein said substrate comprises a plurality of ADP glucose phosphorylase (EC 2.7.7.27) molecules and said test compounds comprise a label to permit identification of a test compound which binds to ADP glucose pyrophosphorylase (EC 2.7.7.27).

27. **(Currently Amended)** The method of claim 245, wherein said substrate comprises a plurality of glycogen synthase (EC 2.4.1.21) molecules and said test compounds comprise a label to permit identification of a test compound which binds to glycogen synthase (EC 2.4.1.21).

28. **(Previously Presented)** The method according to any one of claims 18 - 27, wherein said pathogenic microorganism is a member selected from the group consisting of *Chlamydia pneumoniae*, *Chlamydia trachomatis*, *Esherichia coli* O157, *Haemophilus influenzae*, *Mycobacterium leprae*, *Mycobacterium tuberculosis*, *Salmonella typhimurium* and *Vibrio cholerae*, *Streptococcus pneumoniae*, *Yersinia pestis*, *Bacillus subtilus* and *Bacillus anthracis*.

29. **(Previously Presented)** A compound capable of inhibiting the

growth of pathogenic microorganisms in a mammalian patient identified by the method according to any one of claims 18 - 27.

30. **(Previously Presented)** A method of treating a microorganism infection in a patient which comprises administering to said patient an effective amount of a compound identified by the method according to any one of claims 18-27.

31. **(Previously Presented)** A pharmaceutical composition for the treatment of a microorganism infection which comprises a pharmaceutically acceptable carrier and an effective antimicrobial amount of a compound identified by the method according to any one of claims 18-27.

32. **(New)** The method according to any one of claims 20, 22, 24, 26, 27 and 28, wherein said ADP glucose pyrophosphorylase (EC 2.7.7.27) is in the form of a purified enzyme product.

33. **(New)** The method according to any one of claims 18, 20, 22, 24 and 26-28, wherein said inhibitor is an analogue of ADP-glucose.